My dear Neill —
I am truly sorry not to have the great pleasure of seeing you. I am going on to New York tomorrow (Wednesday) morning. There are crowds of things which I wish to chat with you about.
Pray accept this little pamphlet from your sincere friend
The Author

DESCRIPTION OF A

NEW MIDWIFERY FORCEPS,

HAVING A

SLIDING PIVOT TO PREVENT COMPRESSION OF THE FŒTAL HEAD,

(WITH CASES.)

BY GEORGE T. ELLIOT, Jr., M.D.

P.S. I am at the Grand Come + dine with me at 6 Gracias to you.
G.T.E.

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SLIDING PIVOT TO PREVENT COMPRESSION OF THE FŒTAL HEAD,

(WITH CASES.)

BY GEORGE T. ELLIOT, JR., M.D.,

PHYSICIAN TO BELLEVUE HOSPITAL; THE NURSERY AND CHILD'S HOSPITAL; AND THE LYING-IN ASYLUM; CORRESPONDING MEMBER OF THE EDINBURGH OBSTETRICAL SOCIETY; FORMERLY SIX MONTHS INTERNE OF THE DUBLIN LYING-IN HOSPITAL, AND TWO YEARS RESIDENT PHYSICIAN OF THE N. Y. LYING-IN ASYLUM.

THE man who offers a new Obstetric Forceps to the profession, must be prepared to prove that he has not done so hastily, and that he can present reasons which are at least satisfactory to his own mind; while there is nothing so comforting to a large number of professional men as the frank confession that nothing on the score of originality is claimed.

I believe that the essential elements of the midwifery forceps, for all time, were discovered by the well-known accoucheurs whose names have become identified with the instrument; but that its benefits have been greatly extended by improved cutlery, and its adaptation to increased uses with diminished risk.

Nor do I believe that the ultimatum in this direction has yet been reached.

Moreover, the various modifications in the history of the instrument are unknown to the mass of the profession, while many of them are unattainable; and the choice of physicians is further limited by the fact that eminent men so modify practice in their respective cities, as to give you certain kinds of instruments, well made in one city, and the reverse in another;

hence an instrument may be introduced with advantage in one city, while it would be superfluous in another.

Again, there are gentlemen who would desire to procure, or cause to be made, an instrument that they had seen serviceable in the hands of a friend or instructor, and have a right to the opportunity of satisfying their wishes. And instrument makers furnish better instruments when the professional man, responsible for the model, can personally supervise them.

Nor, in my judgment, can the need of an Obstetrician be satisfied with one instrument, let it be made never so nicely; for the greater the degree of perfection, which it attains in one direction, the stronger the necessity that it lack some elements of perfection in another.

And the most that can be expected of an instrument is, that it successfully meets very numerous indications. I believe—

1. That the principal use of the forceps, in the immense majority of cases, is that of a tractor alone; and that compression is always in some degree injurious, and to be avoided if possible.

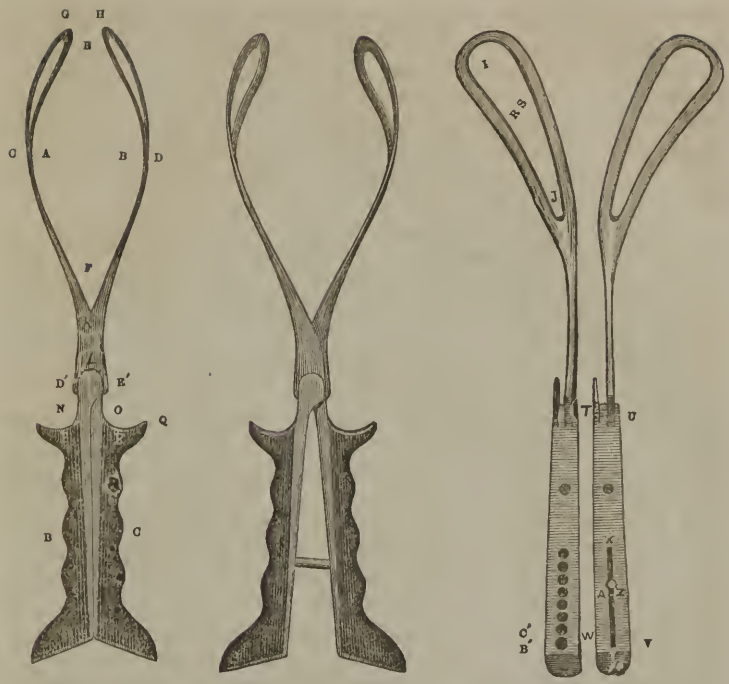
2. That this traction can be applied, and should be applied, by competent men, in well selected cases, even though the head so float above the brim as to be only capable of being steadied by the hand, introduced above the pelvic brim; and that thus the class of forceps, known as short forceps, would not in these cases meet the full requirements of the art.

3. That this traction can be applied, and should be applied by competent men, in well selected cases, through an os uteri, as yet barely dilated sufficiently to admit the blades separately, and that delivery may subsequently be effected by dilating, or lacerating, or incising the os and cervix uteri; and that in many of these cases, the neglect of this procedure entails loss of fœtal life, demands the perforator, or perils the mother's life by delay, based on ignorance of the full capabilities of the instrument.

4. I believe in the existence of a large class of cases, in which a light and slender forceps can simplify delivery by altering the position of the head—a procedure inoperative and injurious, when performed with instruments of large pelvic curve—while its neglect frequently demands the perforator, or makes the difference between a safe operation, or one of the greatest risk, to one or both of the lives at stake.

5. That a forceps, capable of fulfilling all these requisitions, must, of necessity, be well adapted to those simpler cases, to which some men would limit their use, rendering them in the words of Dewees, "scarcely subservient to the art."

Thus the forceps now presented is made as light as is con-



Whole length of forceps	$15\frac{1}{4}$	inches.
A to B	$2\frac{11}{16}$	inches, face of forceps.
C " D	$2\frac{3}{4}$	" back of "
E " F	$6\frac{1}{4}$	"
G " H	$\frac{3}{4}$	"
I " J	$4\frac{3}{4}$	"
K " L	$1\frac{1}{4}$	"
L " M	$6\frac{1}{4}$	"
N " O	$\frac{5}{8}$	"
P " Q	$1\frac{1}{8}$	"
R " S	$\frac{13}{16}$	" centre of fenestra.
T " U	$\frac{5}{8}$	"
V " W	$\frac{7}{8}$	"
X " Y	$2\frac{3}{8}$	"
Z " A'	$\frac{1}{8}$	"
B " C	$1\frac{1}{2}$	"
Length of pin	$\frac{7}{8}$	"

Thickness of blade R S $\frac{1}{8}$th of an inch, a little thinner at the end.

N. B.—B'. This hole is sufficiently deep and wide to receive the entire pivot when it is not needed.

C' is a little deeper than those above, so that the distance between the handles may be nicely graduated by the pivot.

D' to E'. These overhanging projections serve to prevent any risk from slipping of the lock when the handles are widely separated.

sistent with strength, with its diameters as small as the indications given above, would seem to warrant; while the introduction of the *pivot* allows handles long enough to be grasped by both of the operator's hands, without fearing risk to the child from pressure, either when the fœtal head is large, or in those operations where it is utterly impossible now, and must ever be utterly impossible, to seize the head in any other way than by its oblique diameters.

In justice to myself, I must emphatically state the reluctance which I feel in presenting another forceps, lest I should seem to do so hastily, and from any other motive than the conviction that this instrument combines advantages, not offered in any that I have seen in Great Britain, France, or this country; or in any way be understood to suggest the idea that its possession was essential to operative success. I firmly believe that the chief thing to be desired is diligent education of the hand in the lying-in room; and no one is more ready to admit that one may well succeed with a very rough looking instrument, where a less skillful man has failed with a triumph of cutlery; but that is no reason why the operation might not have been better performed with the instrument, the very elegance and adaptability of which serves to increase the triumph of the successful man: and, perhaps, it is well to remember that the much injured Dr. Slop was certainly doing his best to keep up with his profession, and foresaw the advantages which have undeniably sprung from the use of forceps in competent hands.

The great difficulties that operative surgery, in all its branches, has to struggle with, is the manner in which the half educated and the uneducated blindly undertake, what they are incompetent to perform; and it is my earnest hope that in the hands of the inexperienced the slender, light, and yet powerful tractor here presented, may be used for the advantage of the patients, with diminution of some of the attendant risks.

That it has not been hastily decided upon, may be inferred from the fact, that since 1849, when I entered the Dublin Lying-in Hospital, my attention has been steadily directed to the development of unusual hospital and other opportunities; and during this time have repeatedly listened to the arguments of different men in favor of dissimilar instruments, which I have seen them skillfully apply, all the while sedulously guarding myself against the use of one especial instrument; owning ten different pairs, nearly all of which I have applied, besides using several pairs belonging to my friends (not to mention two applications of Simpson's Air-Tractor); replying steadily to my friends among students and physicians, in con-

versation and by letter, that one pair alone could not meet all contingencies, and that no one satisfied me entirely.

Gradually, however, Simpson's forceps became more and more my favorite instrument, and I have twice succeeded in applying them when a remarkably competent man had failed, from selecting an instrument with larger blades; and the advantages claimed for the subject of this article are:

1st. Absence of risk of compressing the fœtal head procured by the pivot.

2d. Greater opportunities for tractive effort, from the very absence of this risk; from the consequent lengthening of the handles; broader transverse bars—diminished spaces between points of blades—slightly diminished width of blades, and diminution of fenestra that increased strength might qualify diminished thickness.

And if the principle of the pivot should give the satisfaction to others that it has given to those who have witnessed the cases hereafter to be narrated, it is well to remember that it can be readily introduced in any instrument for which an obstetrician may entertain a predilection.

I have always been accustomed to place a towel between the handles of my forceps when they would not come together, and have lost valuable time in replacing it and adapting it to changes in the mechanism of labor, which need not be lost with this pivot, as one finger moves it so readily.

Moreover, I believe that its presence is a constant reminder to the inexperienced operator of a danger to be avoided, and that one risk being thus certainly removed, he can proceed more confidently to his main purpose—the delivery of the child with safety to the mother.

The arguments glanced at in this article were developed at length in a course of lectures on Operative Midwifery, in Bellevue Hospital, last winter, when Mr. Ford, of the firm of Goulding & Ford, 85 Fulton street, offered to make these forceps for me, and after several modifications from suggestions derived from trial of the instrument at the bed-side, succeeded in making this, which has been used in the following cases, to my satisfaction.

The following are notes of all the cases in which I have used the instrument in the presence of professional men, having been in no way culled for publication. Those in Bellevue having generally been witnessed by the greater part of the house staff, and other physicians; while their examination will serve to show the character of the tests applied, offering, as they chance to do, examples of the most difficult applications and strongest traction that can be met with in midwifery; after which trials the forceps lie before me uninjured and ready for use.

That it may lose its head-curve some day is possible; the risk is inseparable from the advantages of a light and slender instrument. I have seen such things happen to stronger instruments in my hands and those of others (once in the hands of Dr. Shekleton, Master of the Dublin Lying-in Hospital, where they cannot be accused of exaggerating their estimate of the advantages to be derived from any but a limited use of forceps), and if it should, the man justified in using such traction would not thereby injure maternal structures, for if thoroughly understanding his business, and *pulling only with his arms*, he could not allow them to slip far; the more especially as he cannot deliver from the brim without anticipating such possibility at the period of rotation.

To give an example of such a contingency, I may mention that I purchased from Weiss, in London, a pair of Simpson's forceps, which were as nice looking a pair as I ever saw, and many a hard bed-side tug have they had without yielding, until—

Case 1.—*Illustrative of great tractive force—Forceps—Perforator.*—Called in consultation with Dr. Freeman to Mrs. M., a twin, whose sister had died after her second difficult labor. This one a primipara, 26 years of age, at full term, and had been in hard labor for eighteen hours. Second stage.—Os fully dilatable, soft parts cool, head presenting the 2d of Naegele, right occip. post, and wedged in superior strait, after commencing rotation; no fœtal heart appreciable, but strong uterine soufflé; Simpson's forceps, preceded by chloroform and baptism; *tremendous tractions, until one blade straightened completely.* Another pair; no better success. Perforator and crotchet now used; hard work. Finally replaced the forceps around the diminished head, and effected its delivery. Shoulders could only be extracted with the blunt hook; tight work even with the breech. Child must have weighed fully 13 lbs. I saw her afterwards, when she was doing well, and I believe that she has done well since.

Remarks.—My reason for making such great efforts with the forceps, even when the fœtal heart was entirely inaudible, was the fear that its position might obscure it; for who has not known the fœtal heart in the presentation of the post. font. to the right sac. il. syn. become audible after rotation alone? I had previously put as much force on that pair of Simpson's forceps without injury to them.

Case 2.—*Puerperal convulsions—Forceps—Safety to mother and child.*—Catharine Murphy, aged 18, unmarried, primipara, fell in labor at Bellevue Hospital at 4.30 A.M., January 16th, 1858. Drs. George S. Hardaway, House Physician,

and Henry F. Andrews, Senior Assistant. Pains strong till half-past seven, when she was seized with a strong convulsion. Muscles strongly contracted; face deeply congested; teeth clenched; foamed at the mouth, but did not bite her tongue. After the convulsion the respiration was stertorous, and the face remained congested for some time, pupils acting sluggishly. After this, the pains were less frequent and feeble. Urine drawn off in a catheter, and found to be slightly albuminous. 9 A.M. Convulsion, similar in character and consequences. Os fully dilated. Ant. fontanelle down in a line a little in advance of right eminentia-ileo-pectinea. Posterior fontanelle a little in advance of right sacro-il.-syn. Fœtal heart most distinct at junction of supra-pubic and right iliac regions. Dr. Elliot ruptured the membranes at 11 A.M. Pulse, 92. 1 P.M. Tr. Ergotæ ʒj. 1½ P.M. Another strong convulsion, during the stertorous stage of which Dr. Elliot applied his forceps with the pivot, and delivered without delay. No mark was left on the child, although one blade was applied over the face, and one over the occiput, rotation not having fully taken place. Perineum somewhat lacerated. After delivering, hyd. chlor. mit. ℈ss in butter on back of tongue, and in two hours ʒj ol. ric. Half stupid till 4 P.M., when she had another convulsion, leaving her face deeply congested. Pulse 90, full and laboring. Put in a sitting posture and bled to ʒxvj. Pulse became now less frequent and softer. No signs of syncope. Medicine operated freely at 5½ P. M. Removed to a quiet room, and ice applied to her head. 7 P.M. Rational and easy; pulse 104, soft. 7.35, 96. 9 P. M. Another convulsion; 4 c.c. to nape of neck. Slept quietly all night. 17th. Pulse 84–88. Condition good. Child well, weighing six pounds. Both made a good recovery.

A sample of blood was carefully examined by Prof. Doremus, and found to contain no urea. Microscope disclosed granular renal epithelium, waxy casts, and blood corpuscles.

Remarks.—This case enabled me to test the value of the pivot in an unusual application of the forceps, and by moving it high up, opposite the point where the handles could be kept from farther approximation, no trace of the application was left on the child.

Case 3.—*Delivery with forceps, for the sake of the child—Neck encircled six times by funis—Safety to mother and child.*—My friend, Dr. Eustace Trenor, sent for me on the 31st of January, 1858, to see Mrs. H., a primipara, aged 27, at full term, well built, robust, with a well formed pelvis. Seen by Dr. T. at 8 P.M., 30th. Membranes then ruptured three hours. Pains irregular and feeble. Condition good. Os just admitted a finger. Summum of fœtal heart intensity to the left. No

uterine soufflé. 6 A.M., 31st.—Os fully dilated. Pains strong since 3 A.M., and so continued until delivery. 9.30. A.M. Dr. Trenor sent for me, on account of non-advance of the head, anxious expression of patient's countenance, and dry tongue, and because he could not satisfy himself that the fœtal heart continued audible. I saw her at 11 A.M. Head pressing against bony outlet. Post. font. to right acetab. Vagina cool; perineum rigid. Fœtal heart extremely indistinct, but yet, as I thought, audible. Decided to deliver, principally for child's sake. Applied forceps, with concavity directed to right acetabulum. *Did not need pivot.* Delivered promptly a living child, weighing 6½ lbs., *with cord six times around neck.* Patient under the influence of chloroform given by Dr. T. Placenta came away nicely. On cutting the cord close to the placenta, we wrapped it six times around the child's neck, when the small amount left satisfied us that it was the probable cause of delay.

Case 4.—*Forceps—Living child—Death of mother from puerperal fever.*—Rose Swift was delivered by these forceps, in Bellevue Hospital, on account of arrest of the head, probably from exaggerated flexion. The particulars of the case are published in the NEW YORK JOURNAL OF MEDICINE for July last.

In applying the instrument, it occurred, from the position of the head, that the points of the blades reached the temples, just above the zygomæ, and the handles, of course, not coming together, the pivot was adjusted to obviate risk from pressure. The delivery required strong effort, but left no trace. Dr. Barker was present, and liked the instrument so well that he procured a pair. Child weighed 9 lbs.

Case 5.—*Contracted outlet—Arrest—Forceps—Perforation—Safety to mother.*—On the 26th of March, at 9 A.M., I was requested by Dr. Cadmus to see a primipara, aged 30, who had been in the second stage of labor, with good pains at least twenty-two hours. I found her with a tender abdomen, a very dry and hot vagina, and a diminished outlet, with an excessively rigid perineum. Pulse and expression good. Fœtal heart distinct to the left below the umbiliens. Head presenting, with posterior fontanelle to the *left* sacro-iliac synchondrosis—the movement of descent barely completed.

The condition of the mother, the disproportion and the presentation, seemed to me to clearly indicate necessity for interference, which was accordingly attempted in the presence of Dr. Cadmus and Dr. ——.

The woman having been brought under chloroform, I desired of course to seize the head by the bi-parietal diameter, with the concavity of the blades to the right, but the relations of fœtal head to pelvis prevented me from seizing it otherwise than by

the oblique diameters, which I reluctantly consented to after careful manipulation, and the size of the head demanded that the pivot should be advanced to the highest hole. Now made every effort which I could to rotate or advance the head, first trying to turn the occiput towards the pubis, then in the hollow of the sacrum, or to dislodge it in any way from the position which it had so long occupied, with such risks to the mother. But my efforts were utterly unavailing, though they were continued until there was no alternative for the conviction, and tested alike the tractive force of the instrument, and the reliability of the pivot to prevent compression. When convinced of the impossibility of delivering the child alive, I pushed back the pivot and drew on the head, until the capability of the instrument to act as a compressor was demonstrated by its deep traces, but all without success. Determined to try them fully, I braced my feet firmly, and pulled myself out of breath before they yielded, and when they did, no alteration of position whatsoever had been effected. It was deemed useless to replace them after the trials which had been made, and I delivered a large male child with the perforator and crotchet. No waters of the amnion followed, or hemorrhage, but a stench came after the child which augured ill for the chances of metritis. But, under Dr. Cadmus's care, the woman has entirely recovered.

Case 6.—Convulsions—Albuminuria—Forceps—Both doing well—Dr. E. W. Lambert, house-physician.—A. McKay, unmarried primipara, in Bellevue, aged 19. Labor pains commenced at 7 P.M., Aug. 2d. Waters broke while asleep at 9 P.M. Head presenting; os the size of a dollar, and very dilatable. Second fit at 10 P.M.; third in twenty minutes. Chloroform now, and Dr. Elliot sent for. I went immediately with Dr. Wm. T. Green Morton, of Boston, who happened to be with me; applied the forceps, placing the pivot in the second hole, and delivered a living child without any laceration of perineum, although the vulva was very narrow. Placenta gave no trouble. Chloroform kept up for about twenty-four hours. Whenever the patient came from under its influence a convulsion would occur. Urine drawn with catheter, highly albuminous, though there was *no trace of œdema*, no congestion of face after convulsion. Spec. grav. 1.018; no blood; c.c. no. v. to kidneys; emp. vesic. to nape of neck. No attack of convulsion after midnight of the 3d. Vomited a great deal subsequently, relieved by the dilute hydrocyanic acid. Aug. 8th. Doing well.

Remarks.—In this case the forceps were introduced entirely within the os uteri, which readily dilated before the tractions with the instrument.

Case 7.—*Pelvic presentation in an under-sized pelvis—Room singularly obtained for forceps—Child dead—Mother did well.*—Jane Holland, 24, second child. In labor in Bellevue from Feb. 18th, 2 A.M., to Feb. 19th, 2.45 A.M. Drs. F. A. Burrall and N. Barrows. Child still-born, weighed 7¾lbs.

Two years since she was confined with an eight months' child, "cross birth," lived three weeks. Now at full term. Feb. 18th. While preparing for bed, membranes ruptured without previous pain. Came immediately into lying-in wards, when the left foot was distinguished high up, back of fœtus to left acetabulum. Dr. Elliot summoned, and arrived at 1 A.M., Feb. 19th, just as the knee had reached the vulva. 1.40 A.M. Pains being very severe, chloroform given moderately, and in a few minutes the body of the child passed. After the hips had passed naturally into the world, a loop of cord was brought down which could not be felt to pulsate. Motions of the child but an instant before had given signs of life, and showed its danger. Arms being delivered, and the head refusing to yield to traction or the customary manipulations in these cases, Dr. Elliot passed the first blade of his forceps promptly to its position, but the large head of the child so pressed against the right pelvic brim, as not to afford any space for the second, and all hope of saving the child soon fled.

The perforator was sent for, and while making considerable effort to force a dull instrument through the occipital bone, Dr. E. felt the head to rise sufficiently on the right side to allow the passage of the second blade, when dropping the perforator, he applied his forceps, and delivered with difficulty. The uterus not being promptly followed down, hemorrhage followed to an extent which demanded sharp treatment. Did subsequently perfectly well. Child still-born, weighing 7¾lbs.

Remarks.—On some future occasion I shall have something to say of the dangers to fœtal life in pelvic presentations, and the necessity of being always ready to apply forceps when manipulation fails; and I may here introduce a case in point, as *the instrument used possessed the same blades as those here described.*

Case 8.—*Forceps in breech presentation—Rotation backwards of chin.*—A patient of mine, with an under-sized antero-posterior diameter of brim, had been delivered by me of a living child (whose parietal bone was marked by the promontory) with forceps. Falling in labor again, she sent for me, and I took my friend Dr. J. W. S. Gouley with me. We found a large dead male child, with the shoulders born, and hanging by the head, the chin having caught over the linea ileo-pectinea, a little to the right of the eminentia ileo-pectinea. Applying

the forceps, I rotated the chin backwards, when, depressing it, I delivered with a promptness which would probably have saved the child's life, had they sent for me earlier.

Case 9.—*Deformity of antero-posterior diameter of brim—Forceps—Version—Perforation—Recovery of mother.*—Mary O'Connell, 33, third, Bellevue, Drs. Andrews and Maury. Labor commenced May 15th, 10 P.M., L.O.A. Terminated May 16th, 11.15 P.M. Child still-born, girl, 9lbs.

Patient short stature, apparently well formed; married ten years; first child delivered naturally, and living, though somewhat before the full time. Four years later delivered, after a tedious labor, of a still-born child. Mary was one of these unsatisfactory patients from whom one can with difficulty learn anything, and when the answer is obtained, one has to suspect that almost as much as the previous uncertainty. However, at 7 P.M., 16th, Dr. Andrews, on carefully examining the patient, appreciated the presentation and position, and rupture of membranes, and detected a diminution of the antero-posterior of brim to somewhat less three inches. He sent for me. I agreed with him entirely; believed it impossible for the child to pass, and anticipated very hard work. Sent for my colleague, Dr. Barker, who recognized the deformity, which was probably due to exostosis, and agreed perfectly in our views of the operative procedure, viz., forceps first, and if they failed, version. Pulse 70; condition of patient excellent. Anterior lip, however, down before the head and œdematous, though readily replaceable. At 10 P.M., then, things being in this condition, no advance having been made, the head above the brim dipping the arc of parietal bone formed by the plane of the brim alone into the superior strait of the true pelvis, I applied my forceps, which were promptly adjusted and locked. I then made traction with all the strength which my arms afford, sitting at one time on the floor, and pulling in the direction of the superior strait with all my might. During one of these efforts I felt them slip slightly, and instantly stopping, re-adjusted them, and continued until all were satisfied that traction was of no avail.

I then withdrew the forceps, and passing my left hand within the uterus brought down the right foot. This was not sufficient, as the other caught above the pubis, and was brought down with some difficulty. The hips being delivered, the cord was found to pulsate feebly. The arms were readily brought down, but no manipulation would suffice with the head, which having necessarily turned with the sagittal suture parallel to the transverse diameter of the pelvis, happened so to close the right side as to forbid all hope of introducing the second blade

of any forceps. The cord now ceased to pulsate. Being by this time pretty well fatigued, Dr. Barker endeavored to bring the head through, but it was too firmly wedged to pass. I then introduced the perforator midway between the occipital protuberance, and the mastoid process, and rattled Churchill's crotchet freely about within the cranial cavity. I then tried to introduce Dr. Thomas's ingeniously contrived craniotomy forceps, but although the blades are only the breadth of the middle finger, there was absolutely no chance for the second blade. Having then hooked the crotchet firmly over the occipital bone, Dr. Barker and I relieved each other in our tractions. He made two efforts, and in my third, the head finally passed, one hour and fifteen minutes after the commencement of the operation.

The woman recovered perfectly, although there was puerperal fever at the time in the house, justifying thus what I sincerely believe to have been excellent practice, viz. in commencing the operation before the patient was exhausted by fruitless effort, and reflecting great credit on Dr. Andrews for discovering and appreciating the pelvic deformity when he did, instead of simply satisfying himself that there was a head presentation in a woman who had born a living child.

Case 10.—*Convulsions—Albuminuria—Absolutely unyielding os and cervix — Douche — Incision — Forceps—Still-born child—Mother died.*

The following case is in the words of my friend Dr. Samuel Rotton:

"Catherine H——, aged 26; primip. I was called upon to attend this patient at the solicitation of Dr. James Hyslop, as he had a previous engagement in another part of the city. The patient had for the previous month or six weeks complained to her friends of swelling of the hands and arms, and of the whole of the upper part of the body, and also a puffiness of the eyelids which made it unpleasant to move them; the urine was scanty and at times highly colored. She asked no advice, as she was assured by her friends that it was nothing unusual. She had during the afternoon walked to her sister's, a distance of more than two miles. Shortly after arriving, she was troubled with labor pains, and through the evening, as they increased in severity, slight convulsions accompanied each pain. When I first saw her at 1 A.M., the convulsions were so severe that she did not recover her consciousness afterwards. I found the os slightly dilated, but not more than sufficient to pass with difficulty two fingers, and quite undilatable. The bladder was distended, and I drew off with the catheter about 20 ounces of dark bloody urine. I put her immediately

under the influence of chloroform, and kept up its effect until 4 o'clock P.M., during which time she had but one convulsive paroxysm which occurred while my attention was drawn from her for a short time, so that she passed from under the influence of the chloroform; but during this whole time, with every pain, there was a threatened convulsion which was subdued only by the chloroform. I administered nauseating emetics, and abstracted blood in the hope of procuring dilatation; but at the expiration of 12 hours, the os was as undilatable as at first. I could not at any time hear the fœtal heart, but thought that several times I heard the placental soufflet. About 3 P.M., she seemed to be sinking fast, the pulse sank rapidly to 18, and the respiration to 7 in the minute; I again bled her, and the pulse returned to 90, and the breathing became more frequent and less labored.

"I had sent for medical assistance, and Dr. Gouley now arrived; we injected about three gallons of warm water against the os in hopes of dilating it so as to apply forceps; but it remained as rigid as a board. After partially dividing the os on one side, one blade of a pair of rather heavy forceps belonging to Dr. Hyslop was introduced, but it was impossible for either of us to introduce the other blade, and if even the fingers were passed up some distance by the side of the blade, the contractions were so violent as to cause the operator great pain by the compression of the fingers against the iron. We found that with these forceps it would be impossible to deliver, so we sent for Dr. George T. Elliot. With difficulty, Dr. Elliot's forceps, which were much lighter and of very superior shape, were introduced by him, and the delivery accomplished only after dividing the os on both sides.

"The child was dead. A warm injection was administered, the bloody urine again drawn off, an active purgative given, and cups applied freely over the kidneys; but the patient did not rally, and died about midnight. The friends would not allow a post-mortem."

[This was probably as well marked an illustration of an absolutely rigid os and cervix as could be presented.—E.]

Case 11.—*Arrest in inferior strait—Forceps by Dr. E. W. Lambert.*—Sarah Rodgers; single; aged 23; 1st L. O. A.—From Aug. 2d, 10 A.M. to Aug. 3d, 9 A.M. Bellevue Hospital.

The head was detained for seven hours in the inferior strait before fairly reaching the outlet. Perineum very rigid. Dr. Lambert, the House-Physician in charge, sent for me to see the case at 4 A.M., Aug. 3d. He attributed non-advance to contraction of outlet. The pubic arch admitted two fingers par-

allel to each other beneath the pubis; the point of ossification between the rami of the right pubis and ischium was certainly too convex. Advised delay, and left subsequent operative interference to the discretion of Dr. Lambert. He waited four hours, and then applying these forceps, delivered a living male child weighing 8 lbs. without lacerating the perineum, although there was very great risk of doing so. Pivot placed in first hole. No traces of blades. *Aug. 8th*, P.M. Both doing well.

Case 12.—*Contracted pelvic brim—Arrest—Forceps—Child still-born—Mother recovered—Vesico-vaginal fistula.*—March 28th, 1858.—Mrs. Barnett, aged 32, fell in labor with her second child, under the care of Dr. O'Rorke. 6 A.M. He found the membranes ruptured, and that she had been in labor ten hours. Os fully dilatable. Presentation cranial, and above the brim; fœtal heart beating; mother's condition good. Twelve hours after this, at Dr. O'Rorke's request, I saw the patient with him. Dr. Kiernan was also present. Mother's condition good; abdomen a little tender on pressure. Fœtal heart and uterine souffle distinctly heard at the same site, viz.: just below the umbilicus on the left side. Pains growing weaker. Outlet well formed. Ant.-post. diam. of brim seemed a little over three inches. Head not engaged in brim. Sagittal suture transverse. Fontanelles not clearly to be distinguished. Pelvis shallow. It was decided to apply forceps, because of pelvic contraction, non advance, and suspicious fact that the first child was still-born. Chloroform by Dr. O'Rorke. Forceps applied over the oblique diameter, extending from left orbit. Having exerted all my strength to no purpose, Dr. O'Rorke relieved me, and advanced the head; as rotation commenced, the forceps slipped somewhat; when having re-applied them, I resumed my tractions with all my force, and withdrew the head. The child gasped when born, but could not be revived. Perineum lacerated. Placenta came away well.

March 29th.—Pulse 120; pain over uterus. Blister 6 × 8 and mercurial ointment; with opium internally.

The traction made by the forceps in this case was very great, and Dr. O'Rorke expressed his surprise that the instrument could bear it.

She recovered well, but complained of water dribbling from her if she stands, or lays on either side. When she lies quietly on her back there is no flow, and she can retain her water all night. I made an examination, which, however, was not very thorough, as I desired to send her to Bellevue, where she could have better opportunities for treatment; and inclined to the

opinion that the case was one of incontinence. My colleague, Dr. Taylor, has made two thorough explorations, and has discovered, on the last occasion, a small opening to the left of the vesical termination of the urethra, in which a small probe can pass. The result of treatment shall be reported hereafter.

The fistula is in a site where there was no pressure either from the head or forceps, and I cannot understand how it occurred. It is the first result of the kind which has ever followed any midwifery case in my practice, operative or non-operative.

Cases 13, 14, 15, 16.—In answer to a note which I addressed to Dr. B. F. Barker, inquiring what experience he had had with these forceps, he replied:

"I have used your forceps in four cases, and they have excellently answered my purpose.

"The first case was a primipara; presentation, right occipito-iliac posterior, the head descending into the cavity, and the occiput rotating backwards. After waiting some time, I became satisfied that delivery would not be accomplished by the natural efforts. With your forceps I rotated the occiput under the symphysis, and completed the delivery with great ease.

"In the second case, also that of a primipara, the forceps were used on account of a narrow vulva, and a rigid perineum, the uterus having become exhausted from the protracted labor. The head was at the lower strait.

"In the third case, the forceps were applied while the head was at the superior strait, immediate delivery being rendered necessary by convulsions.

"In the fourth case, the head was delivered by the forceps after the body had been delivered by turning.

"All of the children are now alive, and the mothers made a good convalescence."

Case 13 affords an interesting example of what should always be at least attempted, and tempts me to record a case of great interest to me, and having a direct bearing on the subjects of this article, as illustrative of successful rotation with Dr. Simpson's forceps in a difficult class of cases.

Case 17.—*Face presentation—Rotation of chin to pubis with forceps.*—Mary Jones, aged 19; first; Bellevue. Dr. C. Haasse, house-physician. In labor from Nov. 10th, 1857, 11 P.M.—12th, 6.40. Child, girl, weighing 8½ lbs. Both did well. First seen Nov. 11th, at 2 A.M., by Dr. Haasse. Os just admitted the finger. Membranes broke at 4 A.M. Os then dilated to the size of half a dollar. Pains good, but little progress till 9 A.M., when they ceased. Morphine then enabled her to sleep, from 10 A.M. till 3 P.M. Dr. Haasse then made out face presentation. Caput succedaneum on right frontal protuberance. Chin di-

rected nearly back to right sacro-iliac-synchondrosis. 5½ P.M. No perceptible progress. Dr. Elliot delivered a living child with Simpson's forceps, rotating first the chin to the pubis.

Remarks.—I have seen but three cases of face presentation which required interference; one with Dr. I. E. Taylor, in which he turned; and

Case 18.—*Locked face presentation—Forceps—Perforator.*—One to which I was called in consultation, and to which I also invited Drs. Metcalfe and Charles D. Smith. The patient was a primipara—the presentation had not been recognized, and the eye had been pushed out by repeated examinations, and hung from the denuded orbit. No fœtal heart. I applied two different pairs of forceps, and neither Dr. Metcalfe nor myself could move the head; when I perforated through the orbit, and the mother made an excellent recovery.

Case 19.—*Prolapse of funis—Dr. Thomas's plan—Forceps—Living child—Mother did well.*—Joanna Burke, aged 24; 1st; Bellevue. Drs. H. F. Andrews and R. B. Maury. May 9th, 1858, 10 P.M. Os size of a dime, membranes to be felt during a pain. 4.45 A.M. Membranes had ruptured; water gone; several loops of funis without the os uteri, and pulsating strongly. Dr. Andrews faithfully tried to reposit the cord by Dr. Thomas's plan (*vide* vol. iv. p. 241, N. Y. J. OF MED.), but without success; patient unruly. The woman was kept in Dr. Thomas's position for more than an hour; I was then sent for, and the patient placed on her back, and chloroformed to stop risk from uterine contraction. Went instantly, and arrived a few minutes before six. Directed Dr. Lambert to spring on the bed and hold the woman's hips in the exact position recommended, detailing another gentleman to watch the respiration, as she was fully under the influence of chloroform; and by introducing my whole hand in the vagina, succeeded in repositing the scarcely pulsating funis within the uterus, to such an extent, that the two fore-fingers, buried within the uterus, could barely touch it. But when the next pain came on, it drove the funis up the reversed superior strait, so as to fill the vagina to the vulva. There was no time to lose; and having the woman rapidly placed on her back, I delivered her with all haste possible. The head had barely completed the movements of descent, and was yet in the superior strait; and my forceps were thrown over one oblique diameter, and the child delivered almost as rapidly as I can write this description. The pivot was not regarded much, and the child was marked over the lip with one blade, a result which could have readily been avoided, if I had adjusted it accurately before making my tractions. But I had waited so long for the hope of success, in the manœuvre described, that I did not dare delay one instant.

The child was asphyxiated, but was restored to life. It died on the fourth day, from inanition, with which I think that the sore lip had something to do.

Remarks.—I have since had an opportunity of repeating this manœuvre, in a case where there was originally presentation of edge of placenta, hand and foot, which became complicated with prolapsed funis.

Case 20.—*Placenta prævia—Presentation of foot and hand —Prolapse of funis—Adherent placenta—Hemorrhage—Child born alive—Mother did not recover.*—Consultation with Dr. Eustace Trenor; report condensed from his notes. Mrs. Kane, aged 30, has suffered for several years from bad health and bad habits, and has on three occasions flooded seriously after miscarriages. Last March, when six months gone, she was much excited in endeavoring to procure bail for her husband, who had been arrested for disorderly conduct. On the next day she had a moderate attack of hemorrhage, controlled by Dr. Trenor. Two subsequent attacks were controlled by Dr. E. Hoffman.

June 2d.—She was awakened during the night by labor pains, followed by liquor amnii, when the pains ceased, and she flowed profusely. Dr. Trenor saw her in about three hours, and found her rather pale, with a quick and somewhat feeble pulse of about 88, complaining of weakness, and somewhat restless. Os uteri pretty high up, dilated to about the size of half a dollar, rigid, thick, and filled with a clot. At Dr. T.'s request, I saw her at 7 P.M., when the pulse was 83, moderately strong; lips somewhat blanched; expression pretty good; no dizziness or dimness of vision; voice strong; abdomen flaccid; long axis of uterus transverse; fœtal heart in right lumbar region; no clots in vagina; no flow of blood; an old fœtid clot, weighing about ʒij. lying within the os. No central implantation of placenta, and no placenta felt at that time. Os uteri dilated to the diameter of 1½ in., and not in any way dilatable. Two fingers passed within detected either an olecranon process, or an os calcis. It seemed to me most likely the former. The tips of either fingers or toes could also just be touched. I thought them most likely the fingers.

11 P.M.—Saw the patient again with Dr. Trenor and Dr. Maury. Pulse 78; moderately strong. Expression better. No hemorrhage. Os as before. Presenting parts not reached more readily, but a flap of the stringy placenta now recognized hanging to the os on the right side.

June 3d.—Has vomited once or twice during the night, and then slept quietly. No hemorrhage. Condition rather better. Slight pains commencing. Os uteri softer. At noon, Dr. T.

found that dilatation was slowly progressing under the influence of moderate uterine contractions. Ordered 5j. ol. ric., as the bowels had not been moved since May 30th.

At about 4 P.M. *Dr. Trenor called on me, and stated that a loop of the cord was now presenting at the os uteri and pulsating.*

Went immediately and placed the woman most accurately in the position recommended by Dr. Thomas, and introducing my left hand entirely within the vagina, returned the loop so deeply within the uterus that it could just be touched by my two forefingers buried within it. I thus retained it during two pains, my fingers, in the direction given to the superior strait, pointing downwards and towards the bed. In the interval that followed the second uterine contraction, I withdrew my fingers, and found, to my regret, that the next pain drove the cord *up* the inclined plane of the superior strait into the vagina. A repetition of this manœuvre was attended with a similar result. Not deeming it prudent to delay longer, but maintaining the woman in the same position, I turned my attention to the os uteri, which I now found dilatable enough to admit my hand sufficiently far to recognize, first, a hand, which I dropped, and then a foot, on which I drew (the woman all the while in the same position), until I had drawn the thigh into the world, when I turned the patient on her back, and rapidly completed delivery. The child gasped, breathed, had a good color, and gave every sign of reviving, and then disappointed my carefully-founded hopes by dying, in spite of every effort used for restoring life.

I had no post mortem, but have seen children die suddenly in this way, just after a natural labor, in which there had apparently nothing untoward occurred. The liver seemed, however, in this case, to be noticeably large.

The uterus, meanwhile, had firmly contracted around the placenta, 5ij. of Canavan's fluid extract of ergot having been given immediately after the birth of the child, but Dr. Trenor called my attention to the fact that blood was flowing in a continued stream from the vagina. On introducing my hand into the uterus, I regretted to find that the placenta was everywhere adherent, except at the flap alluded to, and removed it with some trouble, being obliged to leave some pieces which could not be detached without bringing the uterine wall with them. The flooding diminished, and the uterus contracted, but not firmly. 5iij. of ergot and brandy given. Her expression, behavior, and pulse were now such as to threaten instant death. Dr. Trenor went, at my request, for Dr. Van Buren, to transfuse the patient. It was, however, nearly two hours before Dr. V. B. arrived, and by this time the hemorrhage had been controlled.

During all this time her head was thrown down, arms and legs held up, ice over the fundus, while I carefully grasped the uterus with one hand, which at the same time compressed the aorta through the yielding abdominal walls; and with the other, with the aid of ice in the vagina, irritated the cervix, in the hope of reflex action, and thus, with the aid of ergot, brandy, chafing, and hot cloths, after an hour and a half hard work, rallied the patient, whose pulse had twice disappeared from her wrist. I have seen a number of bad cases of flooding, but never saw one so near death recover, except a woman with placenta prævia, in the Hôtel Dieu, in Paris, whom Nélaton successfully transfused, though she afterwards died from metro-peritonitis. The pulse shortly rallied after vomiting, and at 8.30 was 120, very feeble, and the patient restless, sighing, and tossing about, with a very feeble and exhausted expression.

My mind inclined to the propriety of transfusing her then, but it was concluded not to do so.

June 5th, 10.30 A.M.—Since the last note, Dr. Trenor has carefully fed the patient on beef tea, brandy and opium, and she has rallied. Ergot kept in readiness, quinine and sulph. acid given, and a blister has been applied over abdomen, to anticipate metro-peritonitis.

June 6th, 4 A.M.—Dr. Trenor was sent for in haste, as the patient had been flowing freely since 1.30 A.M. By the time he had reached the house, the patient had taken ʒjss. tinc. ergot. A sheet and three smaller cloths were covered with blood, and there was a great deal in the bed. The patient was blanched, almost pulseless, and too feeble to speak above a whisper. On examination, the vagina was found filled with a large clot, and the uterus with another, both of which were removed. The uterus was flabby and enlarged. ʒss. more of the tinc. ergot, with irritation of the cervix by the fingers, brought about a lazy uterine contraction. Brandy was given freely, and the uterus compressed by the hand; but the hemorrhage persisting, Dr. T. plugged the vagina with strips of oiled linen, and finally brought about firm contraction, which was insured by the hand for three hours, when the binder was re-applied. During these three hours Dr. T. had kept the head down and the arms and legs in the air, and had given brandy somewhat freely. The pulse, at the wrist, was now but just perceptible, and sensation in the legs almost gone. She complained of darkness, her lips were blue, and the skin of the upper lip and towards the alæ of the nose acquired a dusky hue. After the application of the binder, brandy and beef tea were given, and she gradually rallied, sleeping at first, and

afterwards becoming restless, throwing herself on her side, and from one side of the bed to the other, suddenly. 10 A.M. Pulse 124. Has vomited five or six times, and taken $\frac{3}{4}$ gr. of opium. 2.45 P.M. Suddenly attacked with a violent fit of vomiting, throwing off in all about a quart of fluid—at first the nourishment which she had been taking, and then matter of a dark greenish hue, with greenish and very dark flocculent matter in it, and without odor. In about fifteen minutes a violent chill came on, lasting some fifteen minutes, when some reaction came on.

June 7th, 11 A.M.—Tampon removed from vagina. During the night had several hard chills, one of them apparently excited by swallowing ʒss. of Labarraeque's Solution, given by her mother-in-law (who also stupidly threw away the placenta). Stomach very irritable; takes very little. Some attacks of faintness. Coughs, with pain in the ovarian regions. Pulse 124. 4 P.M. Pulse 140. Resp. 30. Abdomen more tympanitic, and tenderness spreading upwards laterally. Micturition causes severe pain in the hypogastric region. The skin is covered with a cold perspiration, and dusky, livid spots are appearing on the thorax anteriorly. Ordered, every three hours, ʒj. of a solution of the sulphate of morphia, gr. iiiss.–ʒiv. of water.

June 8th, 10 P.M.—Under the influence of morphia. Pupils contracted; patient quiet and sleepy. Spots disappearing from thorax. Pain less acute, but more extensive. Pulse 116, stronger and fuller than yesterday. Respiration 36. Continue morphia, and ol. tereb. gtt. x. every second hour, and an enema containing ol. tereb. ʒij. and ʒj. ol. ric. in emulsion.

5 P. M.—A little more restless. Pulse 134; respiration 38; subsultus tendinum. Has had one dark green fluid evacuation resembling the matter vomited two days ago. Abdomen softer and less tympanitic, but not less painful. Lochia have almost ceased; tongue becoming dry and brown with disposition to crack. Face very anxious. Lies on her side with knees drawn up.

9th, 11 A.M.—Pulse 120; respiration 58.

7 P.M.—Died. No post mortem allowed.

Remarks.—Although this case has no direct connection with the subject of this article, yet I think that its interest would warrant its introduction into any article on midwifery. But it is published here on account of the interesting parallelism between the results of the same manipulation for reducing the prolapsed funis; and because I desire to say that notwithstanding the failure of the manœuvre proposed by Dr. Thomas in these two cases, I am convinced that by its aid we can better, and more readily, retain the funis in utero than by any other means with

which I am familiar, and we are always well entitled to hope that the funis may slip behind some presenting part sufficiently large to retain it, and thus be restored to its original and natural position in the majority of cases. I shall certainly employ it hereafter whenever the condition of facts is such as to prevent me from delivering with great rapidity, either manually or with forceps. But from these two cases we can see that the position proposed and careful reposition of the funis, are not of themselves sufficient to prevent the funis being driven up hill by uterine contraction, unless sheltered by a presenting part of sufficient volume.

Case 21.—*Deformed pelvis—Breech presentation—Perforator—Convulsions—Recovery.*

Remarks.—This, like the complicated case of labor that I saw with Dr. Trenor, has no bearing on the forceps presented, but serves as an additional example of the growing frequency of the pelvic deformities imported into this country by the lowest of our foreign population. Things have changed greatly since the days of Dewees. A graduate of Bellevue Hospital now runs a fair chance of seeing as many deformed pelves during his eighteen months connection with the Hospital as that distinguished man acknowledges to have met with during his career; and thus the practice of obstetrics is being modified by this among other causes.

Mrs.——, a primipara, aged 25, short in stature, but with no apparent deformity, came to full term, and fell in labor on the night of the 12th under the care of my friend, Dr. H. S. Hewit. At 11 P. M. the membranes had ruptured and the waters escaped. Fœtal heart beating; breech presentation recognized; pains slight. Sent for me 9 A.M., 13th. Found os fully dilatable; sacrum of child directed to left sacro-iliac synchondrosis. Fœtal heart very audible, with summum of intensity above and to left of umbilicus; maternal passages and pulse good. Pains had been strengthened by ergot. Recognized general pelvic deformity; pubic arch good, but rami of ischia too close. Entire brim under size with apparently $2\frac{3}{4}$ of antero-posterior diameter and promontory sharp.

The pains continued good all day, as did the fœtal heart and the mother's condition. The child's scrotum was distended and forced down. Its sphincter ani contracted around the finger.

In the evening, after watching the patient for twelve hours, I advised an operation, and stated that the difficulty would be so great that I should require another assistant, as Dr. Hewit was to take charge of the chloroform. Dr. Metcalfe then became associated with us, and I proceeded with a blunt hook to bring down both thighs, and then both arms, which was accom-

plished without fracture. The head came to the brim with the chin to the left ilium, and no manual efforts were of any avail: nor was there any space for forceps. I then introduced the blunt hook into the mouth, the child being dead, and pressing the crotchet against the occiput, worked till I fractured the jaw at the junction of the left ascending ramus, without any effect. Then introduced the perforator behind the mastoid process of the right side, and made ineffectual efforts with the crotchet. At this stage, there was room for one blade of the cephalotribe in front of the left sacro-iliac synchondrosis, and I introduced it in the hope that some lucky move would make room for the other; but it was impossible. Accordingly I re-introduced the perforator and crotchet, and pulled till I was temporarily used up, though the head had now begun to descend. Dr. Metcalfe succeeded me, and with strong effort withdrew the head. Placenta followed immediately, and uterus contracted well. No hemorrhage. Some symptoms of metritis, which subsequently presented themselves, yielded to a blister dressed with mercurial ointment, and the exhibition of morphia and the veratrum viride.

The patient had convulsions of a mild character on the following Tuesday night, in which the tongue was not bitten; and again on Wednesday night, Dr. Hewit being summoned suddenly to her, witnessed a recurrence of the phenomena apparently from fright. Urine drawn with the catheter, and examined by Dr. Gouley, gave evidence of a slight amount of albumen with casts of the uriniferous tubes, and blood corpuscles.

26th.—Has done well. Premature labor advised hereafter.

Case 22.—*Contraction of antero-posterior diameter of brim—Forceps—Version—Perforator.*—This was a case, to which Dr. McLeod, the present resident physician of the Lying-in Asylum, was called in consultation, Dr. Powers being in attendance. Dr. McLeod being now (Aug. 9th) out of town, I cannot present all the points of the case, nor its subsequent result.

The deformity was such, that the finger readily enough reached the promontory, when passed along the plane, extending to the lower part of the pubis. Her first child had been force-delivered, still-born; she was now at term; and after a tedious labor, Dr. McLeod had applied forceps, the head not being engaged within the brim, and had failed to advance it. He then performed version, a difficult task in this case, with a large male child to contend with, and had brought away the trunk without injury, but could not advance the head by any traction. Failing entirely with the hand, and the child being dead, with the chin to the right ilium, he introduced the

crotchet in the right orbit, and made strong traction, until the orbit and malar bone yielded before the instrument to the alveolar process. He then requested me to see the case. She was under the influence of chloroform, administered by Dr. Powers. The woman's condition was good, and I tried manual efforts, as I often have in these cases, until I have felt and heard the bones of the neck crack, and without avail. With the permission of the gentlemen, I applied my forceps, and hung on it awhile to no purpose. In this case the blades could be readily introduced; so capricious are these cases, some of the diversities of which are illustrated in this article; and there being nothing left in the right orbit to pull on, I proceeded to introduce the perforator, designed by M. le Dr. Blot, of Paris, which I like better than any perforator which I ever used. My reason for not using it at once, was chiefly the position of the head. It was so high up, and so locked, that there remained but the choice of two places for perforation. One through the mouth, with the risk of its slipping through the hole made by the crotchet, and the other through the occipital bone, between the protuberance and the mastoid process, and here the entrance of the point could not be guarded, and the axes of the head had to serve as guides. Having opened the head and evacuated the brain, Churchill's crotchet did the rest, the base of the occipital bone giving a capital purchase in these cases.

Sept. 20th.—Patient recovered perfectly.

Chloroform.—Perhaps it will be as well to mention here, in reference to chloroform, that I always use it in private midwifery practice when desired, and always offer its advantages; and have never performed but one midwifery operation without it, and then in deference to the wishes of a senior physician; and that neither in these cases, nor in the very numerous ones in which I have given it for my surgical friends, in the severest operations, have I ever had cause for regret or alarm. On one occasion, there was a little boy at the Asylum, thirteen days old, with a congenital oblique inguinal hernia, which had been always reducible, and was now so no longer. Failing with the taxis, I requested Dr. John C. Cheesman to see it, and he manipulated the parts carefully, and without success. I then proposed to give chloroform. He stated his preferences for ether, but allowed me to do as I chose. Having brought the child under chloroform, I held him up by the heels, when Dr. Cheesman reduced the hernia instantly. In the afternoon, on my way back from the truss maker's, I met Dr. Murray, of the army, told him of the case, and asked him to visit it with me. We found the hernia down, and not caring to try too much taxis under the circumstances, I gave chloroform again, and with

the same result. Radical cure was then effected with the truss. This must have been nearly five years ago.

Case 23.—*Forceps when the head floated above the brim—Safety to mother and child.*—Before closing this article, which has spun itself out to an inordinate length, I would like to mention a case, happening some two years since, which now occurs to me, illustrative of the second point made, regarding the application of the forceps. Unfortunately the notes are not in my possession, but it becoming, in the opinion of Dr. I. E. Taylor and myself, desirable to deliver a woman in Bellevue, in whom the child's head floated above the pelvic brim, I proceeded to turn in the presence of Dr. Taylor, and the house staff. Of those present, I remember at this moment Drs. John C. Draper and Bolling A. Pope. Having introduced my left hand entirely above the pelvic brim, I found that the wrist accidentally steadied the head by pressure on the chin. Calling for Dr. Simpson's forceps, without removing my hand, I delivered a living child. Mother did well.

43 West 32d street.